

Regression Practice

Use a graphing calculator to find an equation to model the data. Then graph the model and the data in the same coordinate plane.

1.

x	0	1	2	3	4	5	6
y	5	12	35	100	320	1000	2800

2.

x	10	15	20	25	30	35
y	400	500	602	630	590	510

3.

x	-2	1	0	1	2	3	4
y	50	29	15	9	4	3	1

4.

x	0	10	20	30	40	50
y	55	30	20	15	6	2

5.

x	2	8	14	20	26	32
y	525	600	700	830	950	1110

6.

x	13	14	15	16	17	18
y	17.8	27.1	29.5	27.9	18.2	2.8

7.

x	2	4	6	8	10	12	14
y	63	45	38	33	31	32	39

8.

x	0	1	2	3	4	5
y	149.9	224.2	335.5	510.3	760.3	1142.1

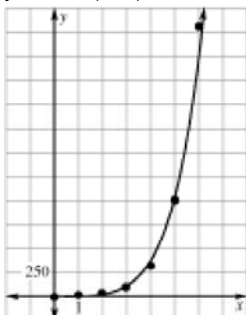
9.

x	3	6	9	12	15	18	21
y	240	150	96	55	32	21	15

Regression Practice Answer Section

1. ANS:

$$y = 4.4(2.9)^x$$



PTS: 1

DIF: Level B

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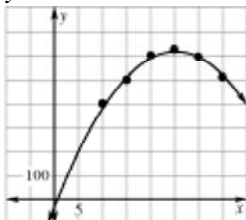
TOP: Lesson 11.5 Choose the Best Model for Two-Variable Data

KEY: Best fit | regression

BLM: Knowledge NOT: 978-0-618-65615-8

2. ANS:

$$y = -1.05x^2 + 52.03x - 24.7$$



PTS: 1

DIF: Level B

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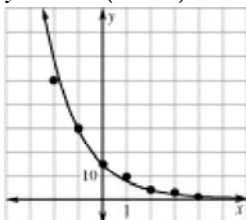
TOP: Lesson 11.5 Choose the Best Model for Two-Variable Data

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BLM: Knowledge NOT: 978-0-618-65615-8

3. ANS:

$$y = 15.2(0.533)^x$$



PTS: 1

DIF: Level B

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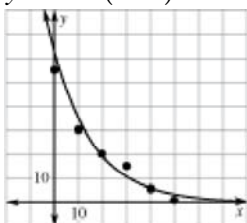
TOP: Lesson 11.5 Choose the Best Model for Two-Variable Data

KEY: Best fit | regression

BLM: Knowledge NOT: 978-0-618-65615-8

4. ANS:

$$y = 63.4(0.94)^x$$



PTS: 1

DIF: Level B

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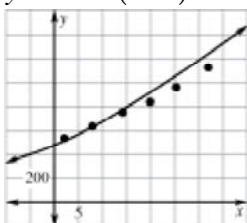
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5. ANS:

$$y = 495.3(1.03)^x$$



PTS: 1

DIF: Level B

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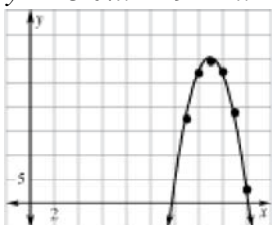
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6. ANS:

$$y = -3.07x^2 + 92.21x - 662.2$$



PTS: 1

DIF: Level B

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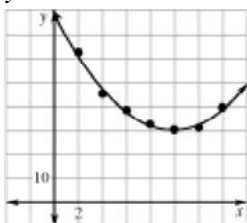
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7. ANS:

$$y = 0.51x^2 - 10.02x + 79.6$$



PTS: 1

DIF: Level B

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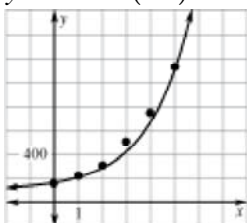
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8. ANS:

$$y = 149.56(1.5)^x$$



PTS: 1

DIF: Level B

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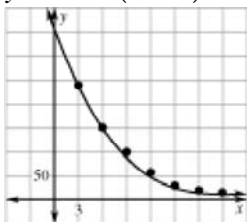
TOP: Lesson 11.5 Choose the Best Model for Two-Variable Data

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9. ANS:

$$y = 382.7(0.853)^x$$



PTS: 1

DIF: Level B

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TOP: Lesson 11.5 Choose the Best Model for Two-Variable Data

KEY: Best fit | regression

BLM: Knowledge NOT: 978-0-618-65615-8